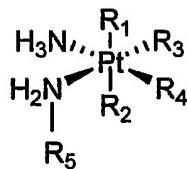


**What is claimed is:**

1. A method of killing or inhibiting the growth of a tumor cell resistant to a non-platinum-based therapeutic agent comprising exposing said cell to an effective amount of a platinum-based chemotherapeutic agent selected from:

- 5        (a)     an orally available platinum-based chemotherapeutic agent;
- (b)     a platinum-based chemotherapeutic agent comprising a platinum (IV) co-ordination complex;
- (c)     a platinum-based chemotherapeutic agent represented in the following general structure:

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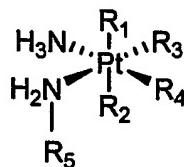


wherein R<sub>1</sub> and R<sub>2</sub> may be present or absent, each of R<sub>1</sub>-R<sub>4</sub> is independently selected from halogen, hydroxyl, and acetate, and R<sub>5</sub> is a cycloalkyl;

- 15        (d)     satraplatin or a metabolite of satraplatin;  
or a pharmaceutically acceptable salt, isomer or prodrug of (a) to (d).

2. A method for treating an individual with a tumor resistant or refractory to a non-platinum-based therapeutic agent, comprising administering to the individual an effective amount of a platinum-based chemotherapeutic agent selected from:

- 20        (a)     an orally available platinum-based chemotherapeutic agent;
- (b)     a platinum-based chemotherapeutic agent comprising a platinum (IV) co-ordination complex;
- (c)     a platinum-based chemotherapeutic agent represented in the following general structure:



wherein R<sub>1</sub> and R<sub>2</sub> may be present or absent, each of R<sub>1</sub>-R<sub>4</sub> is independently selected from halogen, hydroxyl, and acetate, and R<sub>5</sub> is a cycloalkyl;

- 5 (d) satraplatin or a metabolite of satraplatin;  
or a pharmaceutically acceptable salt, isomer or prodrug of any of (a) to (d).

3. The method of claim 1 or 2, wherein R<sub>5</sub> is cyclohexyl.

10 4. The method of claim 1 or 2, wherein said platinum-based compound is selected from: JM216, JM118 and JM383, or a pharmaceutically acceptable salt, isomer or prodrug thereof.

15 5. The method of any one of claims 1-4, wherein the resistance of said tumor cell or said tumor to a non-platinum-based agent is mediated by multidrug resistance.

6. The method of claim 5, wherein the resistance of said tumor cell or said tumor to a non-platinum-based therapeutic agent is mediated through an ATP-binding cassette (ABC) transporter.

20 7. The method of claim 6, wherein the ATP-binding cassette transporter is P-glycoprotein (ABCB1), breast carcinoma resistance protein (ABCG2) or multiple drug resistance protein 1 (ABCC1).

25 8. The method of claim 7, wherein the non-platinum based therapeutic agent is selected from: vinca alkaloids (vinblastine), the anthracyclines (adriamycin), the epipodophyllotoxins (etoposide), taxanes (paclitaxel, docetaxel), antibiotics (actinomycin D and gramicidin D), antimicrotubule drugs (colchicine), protein synthesis inhibitors

(puromycin), toxic peptides (valinomycin), topoisomerase I inhibitors (topotecan), DNA intercalators (ethidium bromide) and anti-mitotics.

9. The method of any one of claims 1-4, wherein the resistance of said tumor cell or  
5 said tumor to a non-platinum-based therapeutic agent is mediated through tubulin.

10. The method of claim 9, wherein the non-platinum based therapeutic agent is selected from: taxanes (paclitaxel, docetaxel and taxol derivatives), vinca alkaloids (vinblastine, vincristine, vindesine and vinorelbine), epothilones (epothilone A,  
10 epothilone B and discodermolide), nocodazole, colchicine, colchicine derivatives, allocolchicine, Halichondrin B, dolstatin 10, maytansine, rhizoxin, thiocolchicine, trityl cysterin, estramustine and nocodazole.

11. The method of any one of claims 1-4, wherein the resistance of said tumor cell or  
15 said tumor to a non-platinum-based therapeutic agent is mediated through topoisomerase I.

12. The method of claim 11, wherein the non-platinum based therapeutic agent is selected from: camptothecin, 9-nitrocampothecin (Orethecin, rubitecan), 9-  
20 aminocamptothecin (IDEC-13'), exatecan (DX-8951f), lurutotecan (GI-147211C), BAY 38-3441, the homocamptothecins such as diflomotecan (BN-80915) and BN-80927, topotecan (Hycamtin), NB-506, J107088, pyrazolo [1,5-a] indole derivatives, such as GS-5, lamellarin D and irinotecan (Camptosar, CPT-11).

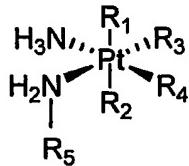
25 13. The method of any one of claims 1-4, wherein said tumor cell or said tumor is resistant to a non-platinum-based therapeutic agent selected from: paclitaxel, docetaxol, adriamycin, mitoxantrone, etoposide and camptothecin.

14. The method of any one of claims 1-4, wherein said tumor comprises a solid tumor  
30 or wherein said tumor cell is included in a solid tumor.

15. The method of claim 14, wherein said solid tumor is selected from: breast cancer, cervical cancer, colorectal cancer, peritoneal cancer, ovarian cancer, bronchial cancer, small cell lung cancer, non-small cell lung cancer, gastric, prostate, and head and neck cancer, or metastases thereof.
- 5 16. The method of any one of claims 1-4, wherein said tumor comprises a hematological tumor or wherein said tumor cell is included in a hematological tumor.
17. The method of any one of claims 1-4, wherein said platinum-based compound is administered to an individual diagnosed with a cancer or tumor refractory to, or previously treated with, a non-platinum-based therapeutic agent.
- 10 18. The method of claim 17, wherein said individual is further administered with one or more anti-emetic or anti-diarrheal agents.
19. The method of claim 17, wherein said individual is further treated with one or more other anti-cancer therapeutic agents.
- 15 20. The method of claim 19, wherein said other anti-cancer therapeutic agent is an agent that overcomes a specific drug resistance mechanism.
21. The method of claim 20, wherein said specific drug resistance mechanism is an increase in drug efflux brought about by ATP-binding cassette transporters.
- 20 22. The method of any one of claims 1 to 4, wherein said non-platinum-based therapeutic agent is not a hormone-based drug.
23. A method for treating an individual with a tumor resistant or refractory to paclitaxel, docetaxol, adriamycin, mitoxantrone, etoposide or camptothecin, comprising administering to the individual an effective amount of satraplatin.
- 25 24. The use of a platinum-based chemotherapeutic agent selected from:
  - (a) an orally available platinum-based chemotherapeutic agent;

- (b) a platinum-based chemotherapeutic agent comprising a platinum (IV) co-ordination complex;
- (c) a platinum-based chemotherapeutic agent represented in the following general structure:

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wherein R<sub>1</sub> and R<sub>2</sub> may be present or absent, each of R<sub>1</sub>-R<sub>4</sub> is independently selected from halogen, hydroxyl, and acetate, and R<sub>5</sub> is a cycloalkyl; and

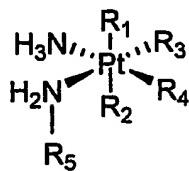
- (d) satraplatin or a metabolite of satraplatin;
- 10 or a pharmaceutically acceptable salt, isomer or prodrug of (a) to (d), for the preparation of a pharmaceutical composition for the treatment of cancer or a tumor resistant or refractory to a non-platinum based therapeutic agent.

25. The use of satraplatin for the preparation of a pharmaceutical composition for the treatment of a cancer or a tumor resistant or refractory to paclitaxel, docetaxol, adriamycin, mitoxantrone, etoposide or camptothecin.

15 26. A packaged pharmaceutical comprising a pharmaceutical composition of a platinum-based chemotherapeutic agent selected from:

- 20 (a) an orally available platinum-based chemotherapeutic agent;
- (b) a platinum-based chemotherapeutic agent comprising a platinum (IV) co-ordination complex;
- (c) a platinum-based chemotherapeutic agent represented in the following general structure:

25



wherein R<sub>1</sub> and R<sub>2</sub> may be present or absent, each of R<sub>1</sub>-R<sub>4</sub> is independently selected from halogen, hydroxyl, and acetate, and R<sub>5</sub> is a cycloalkyl;

(d) satraplatin or a metabolite of satraplatin;  
 5 or a pharmaceutically acceptable salt, isomer or prodrug of any of (a) to (d); and  
 wherein said packaged pharmaceutical further comprises instructions to administer an effective amount of the pharmaceutical composition to an individual suffering from a cancer or tumor resistant or refractory to a non-platinum-based therapeutic agent.

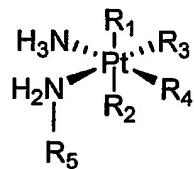
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27. The packaged pharmaceutical of claim 26, wherein R<sub>5</sub> is cyclohexyl.
28. The packaged pharmaceutical of claim 26 or 27, further comprising another pharmaceutical ingredient and/or instructions to further administer an effective amount of  
 15 another pharmaceutical ingredient.
29. The packaged pharmaceutical of claim 28, wherein said other pharmaceutical ingredient is an anti-emetic or anti-diarrheal therapeutic composition.
- 20 30. The packaged pharmaceutical of claim 28, wherein said other pharmaceutical ingredient is an agent that overcomes a specific drug resistance mechanism.
31. A packaged pharmaceutical comprising a pharmaceutical composition of satraplatin, wherein said packaged pharmaceutical further comprises instructions to administer an  
 25 effective amount of the pharmaceutical composition to an individual suffering from a cancer or tumor resistant or refractory to paclitaxel, docetaxol, adriamycin, mitoxantrone, etoposide or camptothecin.

32. A pharmaceutical composition for use in treating a disease selected from a cancer or a tumor resistant or refractory to non-platinum-based therapeutic agent, comprising a platinum-based compound together with a pharmaceutically acceptable carrier, diluent or vehicle, wherein the platinum-based chemotherapeutic agent is selected from:

- 5        (a)     an orally available platinum-based chemotherapeutic agent;
- (b)     a platinum-based chemotherapeutic agent comprising a platinum (IV) co-ordination complex;
- (c)     a platinum-based chemotherapeutic agent represented in the following general structure:

10



wherein R<sub>1</sub> and R<sub>2</sub> may be present or absent, each of R<sub>1</sub>-R<sub>4</sub> is independently selected from halogen, hydroxyl, and acetate, and R<sub>5</sub> is a cycloalkyl;

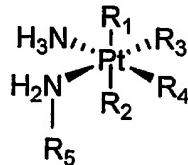
- 15        (d)     satraplatin or a metabolite of satraplatin;  
or a pharmaceutically acceptable salt, isomer or prodrug of (a) to (d).

33. The pharmaceutical composition of claim 32, wherein R<sub>5</sub> is cyclohexyl.

34. A method for treating an individual suffering from a cancer or tumor resistant or refractory to a taxane-based therapeutic agent, comprising administering to the individual  
20        an effective amount of JM216, JM118 and JM383, or a pharmaceutically acceptable salt, isomer or prodrug thereof.

35. A method for treating an individual suffering from a cancer or tumor resistant or refractory to a camptothecin-based therapeutic agent, comprising administering to the  
25        individual an effective amount of JM216, JM118 and JM383, or a pharmaceutically acceptable salt, isomer or prodrug thereof.

36. An article of manufacture comprising a pharmaceutical composition and a label which indicates that said pharmaceutical composition can be used for the treatment of an individual suffering from a cancer or tumor resistant or refractory to a non-platinum-based chemotherapeutic agent, wherein said pharmaceutical composition comprises a platinum-based compound together with a pharmaceutically acceptable carrier, diluent or vehicle, wherein the platinum-based compound is selected from:
- (a) an orally available platinum-based chemotherapeutic agent;
- (b) a platinum-based chemotherapeutic agent comprising a platinum (IV) coordination complex;
- 10 (c) a platinum-based chemotherapeutic agent represented in the following general structure:



15 wherein R<sub>1</sub> and R<sub>2</sub> may be present or absent, each of R<sub>1</sub>-R<sub>4</sub> is independently selected from halogen, hydroxyl, and acetate, and R<sub>5</sub> is a cycloalkyl, optionally cyclohexyl;

(d) satraplatin or a metabolite of satraplatin;  
or a pharmaceutically acceptable salt, isomer or prodrug of (a) to (d).

- 20
37. The article of claim 36, further comprising packaging material, wherein said pharmaceutical composition is contained within said packaging, or wherein said label is contained in or is comprised by said packaging.

38. The article of claim 36, further comprising an anti-emetic or anti-diarrheal agent, or wherein said label further indicates that an anti-emetic or anti-diarrheal agent is to be further administered with said pharmaceutical composition.